Chapter 13
International Portfolio Diversification Benefits among Developed and Emerging Markets within the Context of the Recent Global Financial Crisis

Gülin Vardar
Izmir University of Economics, Turkey

Berna Aydoğan
Izmir University of Economics, Turkey

Ece Erdener Acar
Izmir University of Economics, Turkey

ABSTRACT

This chapter aims to examine the existence of dynamic linkages among the major emerging stock markets, namely Brazil, Hungary, China, Taiwan, Poland, and Turkey, as well as developed markets, particularly the US, the UK, and Germany during the period 2004-2013. Potential dynamic long-run interdependencies are investigated using Johansen and Juselius (1990) multivariate cointegration test and causal relationship through the Vector Error Correction Model (VECM). Moreover, to capture the impact of the recent global crisis on the cointegrating relationship among the developed and emerging markets, the sample period is divided into pre- and post-crisis sub periods. The empirical findings show that, after the crisis period, the direction of the long-run relationship varies, and furthermore, the stock market interdependence increases, supporting herding behavior of investors during the stock market crash period. Therefore, the increasing dynamic co-movements in the period after the crisis provide direct implications for the international investors due to potential limitation in the international risk diversification and the achievement of greater portfolio returns through global investment.
INTRODUCTION

Portfolio management, in general sense, is the design of optimal portfolios that match the rational investor’s objectives with the future prospects of portfolio manager. Modern portfolio theory states that investors constantly attempt to maximize the expected rate of return through diversification opportunities. The increasing trend in the free capital flows, technological developments in communication and trading systems, thereby, reduction in cost of information and the introduction of new financial products create more diversification opportunities for both individual and institutional investors. Rational investors make their decisions based on their risk aversion rather than maximizing the expected utility. Therefore, international investors have begun to implement international portfolio diversification as a tool for reducing the expected portfolio risk and maximizing the expected rate of return.

One of the main principles of international diversification is the existence of uncorrelated return among markets. When returns from investments in different countries’ stock markets are not correlated, the opportunities generated from portfolio diversification are more profitable, according to modern portfolio theory (Elton & Gruber, 1995; Farrell, 1997, Strong, 2000). In recent years, however, globalization, economic and financial integration and assimilation between countries have enhanced the interdependency of global markets and these phenomena seem to affect the decisions of investors in the allocation of financial assets. It is well accepted that integration of financial markets, is primarily linked to economic growth through risk sharing benefits, improvements in allocation efficiency, and reductions in macroeconomic volatility (Pagano, 1993). Since greater integration exists between national stock markets, investors prefer to make an investment in the emerging markets to exploit benefits of international diversification, in the belief that there may be low correlations between developed and emerging markets. In this context, reflecting the trend towards greater integration of stock markets, this chapter explores how application of international portfolio diversification occurs among developed and emerging markets through an assessment of the impact of recent global financial crisis.

The recent global financial crisis is entitled as one of the most severe, because of its global nature. The crisis started in the US and spread through major stock markets all over the world, leading to confusion among policy makers and investment practitioners, and raising many questions relating to the subject of international financial integration. Characterized by turbulent financial markets and widespread economic slowdown across the countries since the middle of 2007, this crisis could be fuelling entirely negative impacts on international financial integration. Given that significant changes have occurred across the world financial markets, it appears timely and interesting to examine whether the relationships among these markets have changed over this crisis period. Therefore, understanding the interaction of global markets across countries interact could provide crucial inputs for policy purposes in dealing with crises spreading from one country to another.

This chapter concentrates on the following questions:

1. What is indicated by any dynamic long-run relationship among emerging and developed stock markets over the period?
2. Have the long-run relationships across stock markets changed since the recent global financial crisis?
3. What are the short-run linkages and causality effects between major developed and emerging stock markets over the period?
4. Are there any specific changes in the short-run and causal relationship among the sample countries after the recent global crisis?